Where wildlife teems in the bleak midwinter

Description

When the English poet Christina Rossetti penned her classic ‘In the Bleak Midwinter’, she may have had a certain image in mind. To some this impression may ring true, but those who study nature will recognise a different reality. Our countryside teems with wildlife in winter if you know where to look.

Small-bodied birds, like this blue tit, need to feed almost continually during cold weather as they lose a lot of energy through heat loss. Photo: Grahame Madge

Matthew Oates, nature specialist for the National Trust, said, “Winter presents us with an array of iconic wildlife, as long as we make the effort to go searching for it. Of course, conditions are much, much tougher for many creatures, while others hibernate or migrate from UK shores. But that doesn’t mean our wildlife has disappeared entirely!

“There are opportunities to spot wildfowl, owls and other birds such as redwings and fieldfares. If it snows, you may stumble across deer tracks, or those of an otter. Hair ice fungi, also known as frost beard, forms on deadwood after a sharp drop in temperature, while the festive season shines a light on holly, ivy and mistletoe.”

Millions of birds, including ducks, swans, geese and wading birds, that nest on an arc from Arctic

Canada to Siberia, are lured north in the Arctic summer by near continual daylight and an abundance of midges. However, these same birds are forced to escape the extreme cold and darkness of the Arctic winter. Over the last few weeks our marshes, estuaries and other wetland areas have been filling up with the arrival of millions of birds that will spend the winter on our shores, often in densely-packed flocks.

Met Office spokesman Grahame Madge is also a keen naturalist. He said: “If anyone remains to be convinced of the excitement of wildlife spectacles in the UK, they haven’t stood on the coast of the Wash in Norfolk and watched skeins of pink-footed geese passing overhead on a winter’s dawn. It’s so awe-inspiring that you instantly forget the pain of the frost nipping at your fingers and toes.”

Winter is a season of sheer survival and, sadly, some species struggle in harder weather. Small-bodied birds like wrens, along with kingfishers and barn owls, can suffer heavily during extreme periods of cold. Grahame Madge added: “The cruel winter of 1963 caused a high mortality of these birds and the national populations plummeted as a result. But enough individuals survived to replenish their numbers and all of these birds are currently doing well.”

In the coldest spells birds like the nuthatch will be enouraged to visit gardens in search of food. Photo: Grahame Madge

As species are mostly focussing on day-to-day survival, many partly overcome natural shyness and can be observed at closer range. Two notable birds to look out for when temperatures drop are the redwing and fieldfare. Known to some as Viking thrushes, these songbirds nest in Scandinavia and

spend the winter in the UK, feasting on hedgerow fruits. However, any snow or frost may encourage these birds, and other birds such as the nuthatch, to visit gardens to find food.

In very hard winters, some exotic wildlife can be tempted into gardens and even wetland birds like the snipe and bittern have been sighted trying to eke out an easy meal.

The Wildlife Trusts, National Trust and the RSPB all have great nature reserves to spot wildlife this winter. For those who want a taste of winter wildlife beamed to their living rooms the BBC's Winterwatch will broadcast from the National Trust's Sherborne Park Estate in Gloucestershire for four days in January.

Date Created
December 2017

What does the temperature of the Atlantic tell us about summer rainfall?

Description

This week, researchers from the National Centre for Atmospheric Science (NCAS) at the University of Reading published a paper suggesting that summer seasonal weather forecasting in the UK could become more accurate thanks to new research. This result is the latest in a long history of work on the links between Atlantic Ocean sea-surface temperatures and the jet stream since early work by the American researcher Jerome Namias in the 1960s and Met Office research by Ratcliffe and Murray in the 1970s. The research also extends earlier results on summer predictability from the Atlantic Ocean state (Colman and Davey, 1999).

A global network of marine bouys and floats is providing valuable information on temperatures at the sea surface and down to a depth of up to two kilometres.

Commenting on this new research Professor Adam Scaife (Head of Monthly to Decadal Prediction at the Met Office) said: “Statistical empirical forecasts, like this, are an important tool in our goal of improved weather forecasting. Our computer models need to reproduce these important relationships so that they can integrate them with everything else going in the climate system to give the best weather and climate predictions. This avoids over reliance on a single effect and gives physically-based predictions in situations that we have not encountered in the historical record.”

This new research will help the Met Office and its university collaborators define an important area of focus for testing computer models used for prediction, and we have already been examining its role in our long-range predictions.

Professor Scaife concluded: “We’ve made great progress in long-range forecasting for winter, and this result highlights an exciting way forward to break into the long-range forecast problem for summer.”

Citation: Osso, A., Sutton, R., Shaffrey, L., and Dong, B. Observational evidence of European summer

weather patterns predictable from spring. Proceedings of the National Academy of the Sciences (2017).

Date Created
December 2017

90 years ago parts of England were getting buried in snow

Description

You might be disappointed that you haven't had a White Christmas, but in 1927 parts of England saw some very disruptive weather with rain turning to snow later in the day, resulting in huge accumulations and causing disruption.

In the weeks before Christmas, Arctic conditions had dominated over the whole of England with a predominantly north-easterly flow. The maximum temperature recorded at St James Park in London on the 19th was -1.1 ^{o}C and in Oxford just -2.6 ^{o}C with temperatures getting down to between -5°C and -8°C at night.

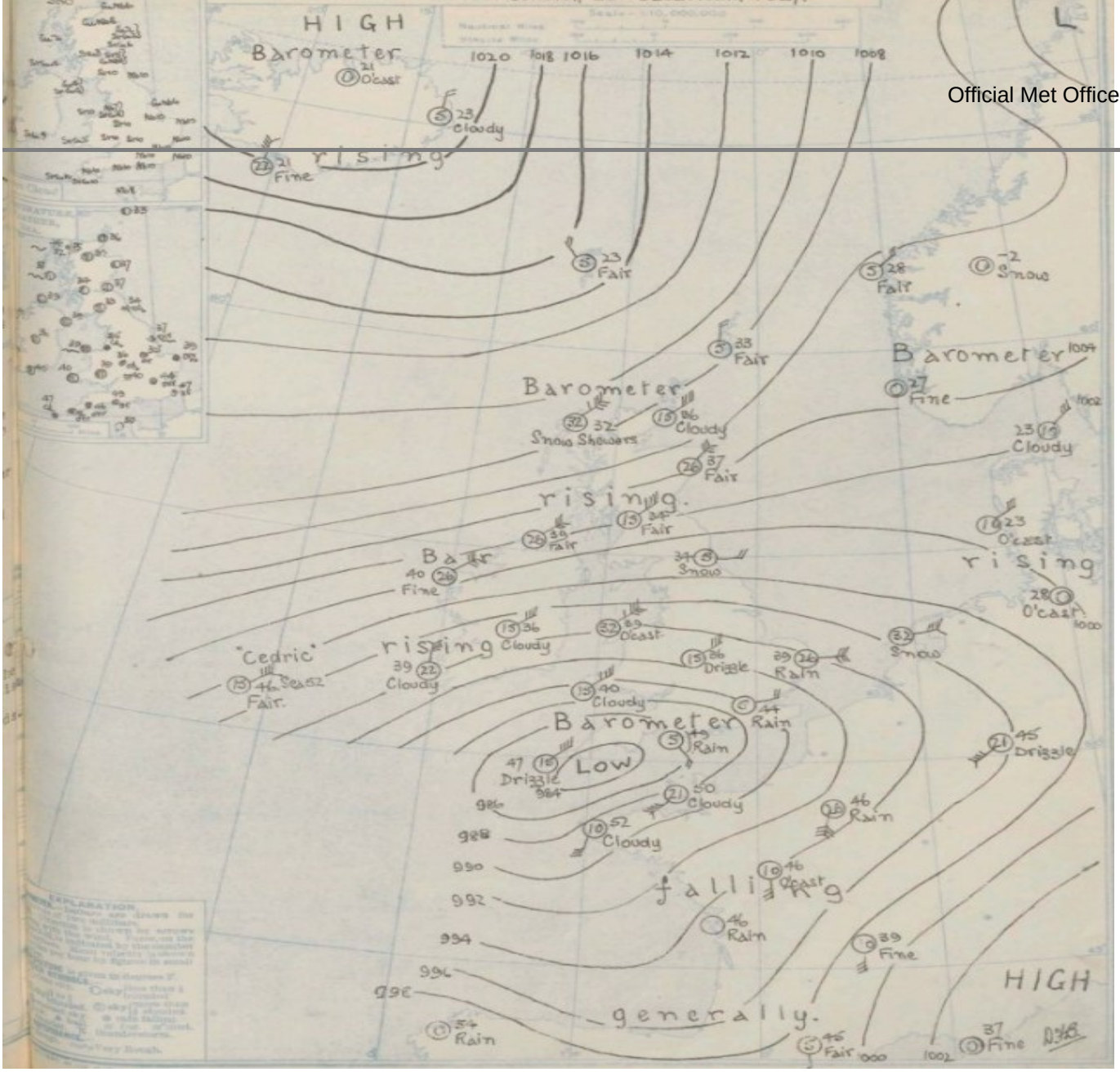
A large area of low pressure developed over the Atlantic south of Greenland and then rapidly moved towards the UK and tracked over Cornwall and north west France on Christmas Day and Boxing Day as shown in the synoptic charts. This system brought a strong polar wind from the north east and the boundary between this system and the high pressure to the north fuelled the blizzard. Christmas Day itself saw fairly typical December temperatures with heavy rain, 41.7 mm was recorded at Hampstead.

By 6pm this rain started to turn to snow for central and southern England with the heaviest snow falling at the boundary between the colder air to the north and milder air over France to the south. The snow continued through the night and for some areas through much of Boxing Day, temperatures fell away and large snow accumulations built up, particularly over higher ground.

Average snow depth exceeded 1 foot on higher ground such as Dartmoor over a very large area. A strong north-easterly wind resulted in huge snow drifts, with 20 foot depths reported on Salisbury Plain. Hundreds of sheep were buried in the snow on Dartmoor, with most of them were dug out over subsequent days and survived.

Villages were cut off for days, some until the New Year. There are stories that in Kent food and other necessities were distributed by skiers and in Hampshire food parcels were dropped by aeroplane. For inland areas of southern England it became one of our most significant snow events on record. It was most severe on Dartmoor where Princetown was inaccessible for a week.

The meteorological set up was actually startlingly similar to the conditions that bought heavy snow to Wales and central England on 10 December this year. A battle ground was formed where warm air from the south bumped into cold air to the north that had been in place for several days. The limited technology in 1927 made it very hard for forecasters to predict this severe weather, in contrast with the technology that the Met Office now uses which helped meteorologists forecast the snow on 10 December nearly six days ahead and issue warnings well in advance of any impacts.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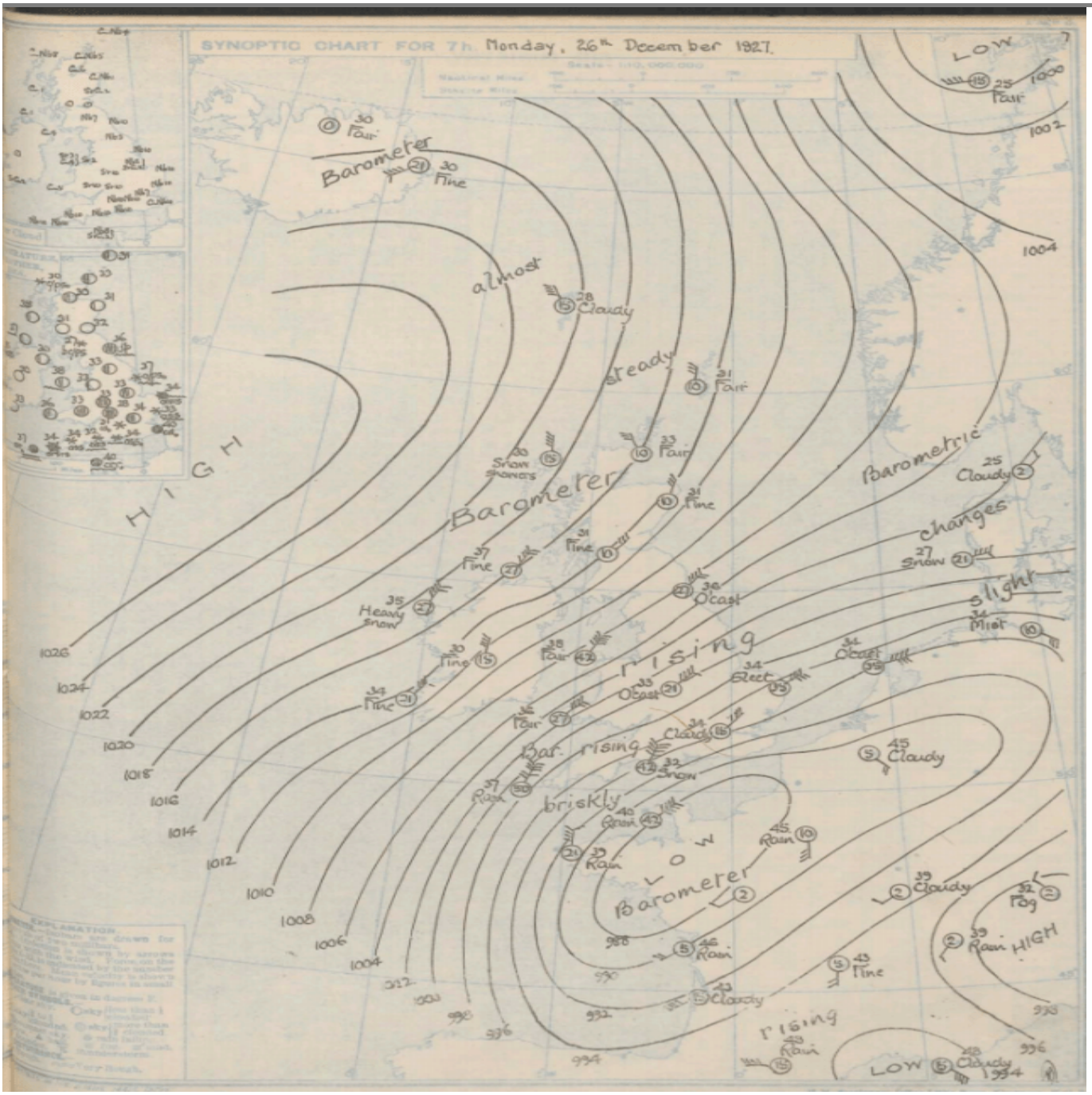

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